



BELIZE DEPARTMENT OF CIVIL AVIATION AIWORTHINESS ADVISORY CIRCULARS

THE PROBLEM OF BOGUS PARTS

1) INTRODUCTION

- 1.1 The BDCA is concerned about the possibility that unapproved parts may find their way on to Belizean registered aircraft, in particular helicopters. Evidence indicates that these counterfeit and/or fraudulently identified parts are readily available worldwide.
- 1.2 Manufacturing and/or marketing bogus parts is not endemic to any one State but evidence of the falsification of release documentation (EASA Form One/FAA 8130-3/TC Authorized Released Certificate Form 1) has been observed.
- 1.3 Installing bogus parts onto aircraft has serious airworthiness implications; to illustrate just how serious, the following two examples are quoted involving aircraft which are available in the international market place:
 - a) A helicopter main rotor blade complete with release documentation was traced as having been scrapped by the manufacturer during the manufacturing process; and
 - b) An engine mount described as fitted new to an aircraft in 1979 was traced as having been factory installed in 1966.

2. UNAPPROVED PARTS

For the purpose of this Advisory Circular, an Unapproved part is a part or material, which has been neither manufactured according to approved procedures nor conforms to an approved type design or it fails to conform to declared specifications or accepted industry standards (i.e. standard parts) and which is intended for installation on a type certificated product/aircraft.

2.1. Unapproved parts include, but are not limited to:

- a) Parts specified in the illustrated parts catalogues (IPC) of a type certificated aircraft, but which have been manufactured, reclaimed or reworked and then marked by an unauthorized source and provided with documents which indicate falsely that the part(s) are genuine and conform to the approved type design or meet a particular industry standard and are offered for use as conforming with an aircraft manufacturers authorized IPC.
- b) Parts shipped directly to users by manufacturers, suppliers or distributors who do not themselves hold appropriate production approvals for the parts, and have not been authorized to make direct shipments to users or stockists, by the type certificate holder, who alone has production approval e.g. production overruns. This is a particular phenomena in the United States.

- c) Parts which have not been maintained, overhauled or repaired in accordance with the requirements of approved airworthiness data and/or statutory requirements, or that have been maintained, overhauled or repaired by persons not authorized to perform and certify these functions.

3. Parts Originating From the Surplus United States Military Stock

The United States Department of Defense (DOD) has a programme called 'BREAKOUT'. Under this programme the DOD use manufacturers' approved drawings, obtained under the terms of production contracts with the original equipment manufacturer and seek bids from anyone who wishes to make the parts. Parts produced under the BREAKOUT programme are unacceptable for use on Belize civil registered aircraft for the following reasons:

- a) The suppliers of the BREAKOUT parts may not have the stringent quality controls that are required by the aircraft/component type certificate holder to satisfy FAA requirements. For example, periodic conformity inspections and destructive tests to assure the continued quality of the product may not have been undertaken.
- b) The US government may also substitute military specifications in lieu of originally approved material and process specifications; thereby developing parts that do not conform to the FAA approved civil type design.

4 FAA Suspect Unapproved Parts Notifications

4.1 The FAA has intensified efforts to educate the public regarding the potential safety threat posed by aeronautical parts that do not meet applicable design, manufacturing or maintenance requirements. To achieve this, the FAA established a Suspect Unapproved Parts programme (SUPs) and issued guidance in an Advisory Circular 21-29B.

4.2 Suspect Unapproved Parts Notifications can be found on FAA Internet site: <http://www.faa.gov/avr/sups.htm>

4.3 Because of the increased activity being undertaken in the United States against suspect unapproved parts, it is likely that the vendors of these parts will direct their activities to wards Europe and other parts of the world, because of the reduced risk of detection.

5 Mandatory Occurrence Reporting Procedures

5.1. Users of aircraft components and spares are reminded that suspected unapproved parts should be reported to the BDCA through the Mandatory Occurrence Reporting procedures (MOR). (See attached **BDCA Form SUP**)

5.2. Although the MOR procedure does not extend to piston engined aircraft privately operated, and any aircraft with a Special Airworthiness Certificate, users of aircraft parts or material for this class of aircraft are encouraged to use the procedure where suspect parts are identified.

- 5.3. On receipt of an MOR, and where appropriate, the BDCA will pass the details to the responsible aviation Authority. In addition to assisting the FAA, who are implementing a vigorous campaign against unapproved parts, this procedure will enable the BDCA to establish the dimensions of the problem as it affects the BDCA
- 5.4. To assist in tracing unapproved parts or material, persons raising an MOR should, as far as possible, provide the following information on their report:
- a) The name of the suspected unapproved part.
 - b) Part number, or any other number on the part
 - c) .Serial number of part.
 - d) List next higher assembly that suspected unapproved part is assembled into (ie, fuel pump, engine, and landing gear) and list part number, if known.
 - e) Quantity of suspected unapproved parts found or identified.
 - f) Make and model number of the aircraft or component that the suspected unapproved part is applicable to.
 - g) The identification of the commercial source of the suspected unapproved part. If the part is identified with Part Manufacturer or Distributor marking, this should be quoted.
 - h) Describe any pertinent facts relating to the suspected unapproved part and identify where the part may be inspected (provide photos, invoices, etc., if available).
 - i) The date the suspected unapproved part was discovered.
 - j) Name and address in full or the location where the suspected unapproved part(s) was discovered.
- 5.5 Foreign aircraft and approved component manufacturers can be contacted directly for verification that specific serial numbered items purported to be manufactured by them are in fact recorded in their archives.

6 The Certifying Person and User Responsibility

- 6.1. The Certifying Person (User) can be either the Approved Maintenance Organization, a person authorized in accordance with that organization's Maintenance Procedures Manual or an appropriately BDCA Type Rated Licensed Engineer, who issues the maintenance release for installation of an aircraft part into an aircraft, its engine(s), propeller(s) or equipment.
- 6.2. The User of an aircraft part is responsible for ensuring that the part is serviceable and conforms to the standard determined by the appropriate type certificate holder as being suitable for the intended application. In order to discharge this responsibility to the satisfaction of the BDCA, the user must, when obtaining an aeronautical part from a supplier:
- a) Ensure that the purchase order contains an accurate definition of the aircraft parts and full details of the quality control and certification requirements to be met by the supplier in satisfying the order;
 - b) Take all necessary steps to verify that the supplier is meeting the requirements of the purchase order. This may require the user visiting the supplier's facilities.

- 6.3. In order to contain the serious problem of unapproved parts, Commercial Air Transport Operators (Public Transport) and associated maintenance organizations that are users of aircraft spares, should ensure that their aircraft spares purchasing policy and procedures are unequivocally stated in their company Maintenance Procedures Manual and engineering procedural documents. They should also ensure that any deviation from that policy must be approved by the quality manager in accordance with procedures acceptable to the BDCA.
- 6.4. Other organizations and private owners who purchase aircraft parts or materials can only be advised to exercise extreme caution and remember they will have to convince the USER of the authenticity of such spares.



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SUSPECTED UNAPPROVED PARTS REPORT

1. Date the part was discovered:		2. Part Name:	
3. Part Number:		4. Part Serial Number:	
5. Quantity:	6. Assembly Name:	7. Aircraft Make & Model	
	Assembly Number:		
8. Name, Address, and Description of the company or person who supplied or repaired the part			
Name:		Street Address:	
City:		State:	Zip Code:
Country:		Phone Number:	
Check one of the following applicable to the company or person who supplied or repaired the part:			
<input type="checkbox"/> Air carrier certificate #		<input type="checkbox"/> Supplier	
<input type="checkbox"/> Mechanic certificate #		<input type="checkbox"/> Production approval holder	
<input type="checkbox"/> Repair station certificate #		<input type="checkbox"/> Manufacturer	
<input type="checkbox"/> Distributor		<input type="checkbox"/> Other	
<input type="checkbox"/> Owner/operator		<input type="checkbox"/> Unknown	
9. Description of the issue			
10. Name and address of (the company or person) where the part was discovered:			
Name:		Address:	
Phone number:			
Check one of the following applicable to the company who discovered the part			
<input type="checkbox"/> Air carrier certificate #		<input type="checkbox"/> Supplier	
<input type="checkbox"/> Mechanic certificate #		<input type="checkbox"/> Production approval holder	
<input type="checkbox"/> AMO certificate #		<input type="checkbox"/> Manufacturer	
<input type="checkbox"/> Distributor		<input type="checkbox"/> Other	
<input type="checkbox"/> Owner/operator		<input type="checkbox"/> Unknown	
11. Date of this report:			
12. <input type="checkbox"/> Check this box if you request anonymity- Do not complete blocks 13-15			
13. Name and address of reporter:			
Name:		Address:	
Phone Number:			
14. <input type="checkbox"/> Check this box if you request confidentiality			
15. <input type="checkbox"/> Check this box if you <u>do not</u> wish to receive an acknowledgement letter			
16. <input type="checkbox"/> Check this box if you have attached additional information			

Instruction for completing BDCA Form SUP, Suspected Unapproved Parts Report

1. Record the date the part was discovered
2. Record the part name (or a description of the part)
3. Record the part number or identification number of the part
4. Record the serial number of the part, if applicable.
5. Record the quantity of parts
6. Record the assembly name and assembly number (where the part was or could be installed)

Example: Part name: Strut Part number: PN12345 Serial number: 678 Qty: 1
 Assembly name: Main landing gear Assembly number: PN 90101112

Note: Record additional part numbers on page 3 or a blank sheet with the following headers:

Part Name: Part Number: Serial Number: Quantity: Assembly Name: Assembly Number

7. Record the type of the aircraft the part was (or could be) installed on
8. Record the complete name and address of the company or person who produced, repaired, and/or sold the part. Do not list a P.O. Box address unless a street is not available.

Check the box that describes the company or person. Provide the certificate number, if known

Air Carrier -A BDCA certificated company or person who undertakes directly by lease, or other arrangement, to engage in air transportation	Supplier – A company or person who furnishes aircraft parts or related services, at any tier, to the producer of a product or part thereof
Mechanic – A person holding a Belize Aircraft Maintenance Engineers Licence	Production Approval Holder – A company or person holding a production certificate, approved production inspection system, part manufacturer approval or technical standard order authorization
AMO – A Belize Department of Civil Aviation Approved Maintenance Organization	Manufacturer – The original equipment manufacturer (OEM)
Distributor – A broker, dealer, reseller or other person or agency engaged in the sale of parts	Other – Record other type of business
Owner/operator – the owner or operator of an aircraft	Unknown

9. Record a brief narrative stating why you believe the part is not approved. Include a description of the part (improper configuration, suspect marking, different material, etc) where it was obtained, and what type of documentation was supplied with it.
10. Record the complete name and address of the location where the part was found. Check the appropriate block to reflect the affiliation of the company or person who discovered the part
11. Record the date the BDCA Form SUP is being submitted
12. Check this box if you request anonymity. Do not complete 13, 14 or 15
13. Record your name and address if desired. This information will enable the BDCA to contact you for additional information, if necessary
14. Check this box if you request confidentiality of your personal information recorded in block 13
15. Check this box if you do not wish to receive a letter of acknowledging the BDCA receipt of BDCA Form SUP
16. Check this box if you have provided additional information (photos, invoices, certification statements etc)

